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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of

Additional Spectrum for Unlicensed
Devices Below 900 MHz and in the
3 GHz Bands

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ET Docket No. 02-380

To: The Commission

**COMMENTS OF THE PORT AUTHORITY OF
NEW YORK AND NEW JERSEY**

The Port Authority of New **York** and New Jersey (hereinafter "Port Authority"),
by its attorneys, hereby submits the following comments in response to the Commission's
Notice of Inquiry, FCC 02-328, released December 20, 2002 ("*Notice*"), in the above
referenced proceeding

This proceeding has been initiated for **the** purpose of examining the feasibility of
permitting the operation of unlicensed transmitting devices in additional frequency bands,
including the 470-512 MHz band in which the Port Authority now operates a substantial
number of public safety radio facilities. As to this and other frequency bands in which
licensed radio facilities are used by public safety agencies to protect the safety of life,
health and property, the proposal is ill-conceived and, indeed, potentially dangerous.
With respect to these vitally important public safety bands, the proceeding should be
promptly terminated.

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I. THE 470-512MHz BAND IS NOW HEAVILY USED BY PUBLIC SAFETY AGENCIES, INCLUDING THE PORT AUTHORITY, FOR VITALLY IMPORTANT PUBLIC SAFETY RADIO COMMUNICATIONS

The Port Authority is a municipal corporate instrumentality and political subdivision of the States of New York and New Jersey, created and existing by virtue of the Compact of April 30, 1921, made by and between the two States, and thereafter consented to by the United States Congress. It was created to provide essential transportation, terminal and other facilities of commerce within the “Port District” of the metropolitan New York-New Jersey area, an area of about 1,500square miles in both States, centering around New York Harbor. The Port Authority is responsible for police, fire, emergency medical services, maintenance, snow clearance, and facility operational services at its facilities. Key public transportation facilities operated by the Port Authority include the John F. Kennedy International Airport, LaGuardia Airport, Newark Liberty International Airport and Teterboro Airport, two vehicle tunnels and four bridges between the States of New York and New Jersey, the Port Authority Bus Terminal in downtown Manhattan, the PATH interurban rapid transit system between New York and New Jersey, trans-Hudson ferry service, the Downtown Manhattan Heliport and six marine terminals. The Port Authority’s police personnel include over 1,650sworn police officers, of which some 400 are also trained to perform crash, fire and rescue functions at the Port Authority’s airports.

In support of its extensive operations, the Port Authority operates an extensive network of public safety mobile radio and microwave facilities in the New York-New Jersey metropolitan area. These public safety facilities include a significant number of

facilities operating in the 470-512 MHz band (TV Channels 14-20), which is among the bands being examined in this inquiry proceeding. For example, key Port Authority 470-512 MHz radio facilities now support the public safety responsibilities of the Port Authority at the following key transportation facilities:

John F. Kennedy and Newark Liberty International Airports – Ramp and airport airside and landside operations, including vehicle control, special events operations and snow removal.

Port Authority Bus Terminal – Two-way communication among police, operations and maintenance personnel.

Port Authority Marine Terminals¹ – Port operations.

Staten Island Teleport – Perimeter security operations.

As summarized in the *Notice*, the 470-512 MHz band (TV Channels 14-20) has long been shared between broadcasting and land mobile communication in eleven major metropolitan areas.² Specifically, in the New York City-New Jersey metropolitan area where the Port Authority operates, Channels 14 and 15 are generally allocated for land mobile use, a substantial amount of which is licensed to public safety agencies. Furthermore, in recognition of the severe shortage of public safety spectrum in the nation's largest metropolitan area, specific public safety agencies have also been authorized to use Channels 16 and **19** for public safety use in the New York metropolitan area.³

¹ Specifically, Port Newark, Elizabeth-Port Authority Marine Terminal and Brooklyn Piers.

² See 47 C.F.R. §90.303

³ *New York Metropolitan Area Public Safety Agencies*, 10 FCC Rcd 4466 (1995); Nassau County Police Department, *Memorandum Opinion and Order*, FCC 02-1771 (released July 23, 2002).

Nationwide, many other large police, fire, and EMS agencies similarly operate their principal radio communications systems in the **470-512 MHz** band. Like the New **York** metropolitan area, the ten other metropolitan areas in which significant portions of the 470-512 MHz band are used for public safety purposes are areas in which public safety spectrum needs are the **greatest**.⁴ Overall, over 670,000 public safety radio stations are licensed to operate in this key public safety band (*Notice*, n.1).

The 764-776/794-806 **MHz** band (TV Channels 63, 64, 68 and 69) which is also the subject of this inquiry proceeding also has been recently reallocated for public safety radio communications, as required by the Balanced Budget Act of 1997.⁵ This new public safety frequency band will greatly improve public safety communications capabilities across the nation, and provide for enhanced interoperability between public safety agencies. Obviously, insofar as the protection from interference from other sources is concerned, it should be treated in the same fashion as other key public safety radio bands.

Preventing interference to public safety radio systems before it occurs has always been, and must continue to be the first priority for the Commission.⁶ The potential for interference from a broad and moving universe of unlicensed operations poses a special threat to public safety because, once it occurs, it is difficult, if not impossible, to trace and remedy. There is no license database to identify the user, operating parameters, or

⁴ In addition to the New **York** metropolitan area, these metropolitan areas are Boston, Chicago, Dallas/Fort Worth, Houston, Los Angeles, Miami, Philadelphia, Pittsburgh, San Francisco and Washington, DC. In the aggregate, these metropolitan areas contain roughly one-third of the nation's population.

⁵ *Report and Order in ET Docket No. 97-157*, 12 FCC Rcd 22953 (1997).

⁶ *See Improving Public Safety Communications in the 800 MHz Band, Consolidating the 900 MHz Industrial/Land Transportation and Business Pool Channels*, Notice of Proposed Rulemaking, 17 FCC Rcd 4873 (2002).

location of the interfering device. That is an intolerable situation when the interference at stake has the potential to disrupt vital public safety communications.

Moreover, as the Commission is well aware, the use of communications facilities by the public tends to peak during times of emergency conditions, sometimes to the point of overloading facilities and disabling the effective operation of communications systems. Thus, at the very time public safety radio systems would need to operate at maximum capacity and reliability, the potential for interference from unanticipated problems in the operation of unlicensed device networks would be the greatest. For this reason alone, this is an area in which the Commission must proceed with extreme care and caution.

II. THE VARIOUS TECHNICAL AND OTHER SHARING OPTIONS SET FORTH IN THE NOTICE ARE INADEQUATE TO PROTECT PUBLIC SAFETY RADIO SERVICES FROM INTERFERENCE FROM UNLICENSED OPERATIONS

Under long-established policy, the Commission has generally restricted the operation of unlicensed ~~Part~~ 15 devices in vital public safety radio bands. No reason or supporting technical data whatsoever **has** been presented in the *Notice* that would permit the Commission to reverse this sound policy and even consider the operation of an unknown and potential huge universe of unlicensed consumer devices in vitally important public safety radio bands. The potential for interference is simply too great to risk the change.

This is particularly true given the proposed allowance of higher power operation than currently permitted by FCC rules (1 watt) and/or higher gain antennas in order to

provide for a greater transmission range. *Notice*, ¶ 8. This would allow the operation of even more powerful unlicensed devices than is currently permitted in the Industrial, Scientific and Medical (**ISM**) band, where **ISM** equipment generally is not impacted by interference from unlicensed devices.⁷

We fully appreciate that technological advances in the development of unlicensed devices and products such as wireless computer networks and Internet connections hold the potential to produce important benefits to the economy, businesses and consumers. *Notice*, ¶ 1, 7. However, that is not the issue at this point and, in this respect, we are most concerned that the Commission in the *Notice* seems to be “putting the cart before the horse.” Rather than base spectrum allocation decisions that are irreversible once made on unproven concepts, and the hope that the technological solutions will ultimately be there, the order of reasoning should be just the reverse. Particularly where vitally important public safety spectrum is involved, allowing unlicensed users to share the spectrum should not even be considered until interference avoidance technology is proven and in the field. As one respected representative of the technological community recently advised the Commission, “allocations based on anticipated advances in technology are dangerous, and should await the demonstrable existence of such technology at reasonable costs for widespread deployment.”*

The *Notice* falls far short of the standard. It does no more than suggest, at ¶13, that technological developments may allow for more extensive frequency sharing with

⁷ Under current ~~part~~ 15 rules, higher power unlicensed devices of no more than 1 watt are restricted to the ISM band which can tolerate that level of operation because ISM equipment in use in the band generally is not impacted by interference from other sources. Unlicensed devices authorized to use certain other bands are restricted to significantly lower power levels because of the potential of interference to licensed users.

⁸ Comments of Telecommunications Industry Association, in response to FCC Spectrum Management Taskforce Report, at p. 3.

unlicensed devices than has been the case in the past.’ However, the promise of such technologies are far too speculative and uncertain at this time to be relied upon to prevent life-threatening interference to public safety communications systems. For example, the Commission refers to technology that would allow equipment to “monitor the spectrum to detect frequencies already in use and ensure that transmissions only occur on open frequencies.” From the discussion, it appears the reference is to a technology that would protect frequencies in use on a constant basis. While that might be the case with broadcasting and other services transmitting continuous carriers, it certainly is not the model for public safety and most other land mobile communications, which involve intermittent, on demand, use. A frequency may appear to be unused, only to be “keyed up” for a critical emergency communication in the next second. While technologies may someday be able to distinguish between unused and “quiet” channels, the Port Authority is unaware of the present existence of such proven and reliable technology in the commercial marketplace.

Nor is it realistically possible to limit unlicensed operation to discrete geographic areas that are not used for public safety radio communications. While it is true that public safety use of the 470-512 MHz band is currently limited to specific geographic areas, interference with these systems cannot be averted simply by prohibiting unlicensed 470-512 MHz operations in those particular areas. By definition, because the device is unlicensed and therefore unknown to the FCC, there is no practical ability for the **FCC** to

⁹ In addition, the *Notice* is remarkably devoid of information with respect to the specific spectrum needs and technologies that would be used by unlicensed devices. **Apart** from generalized assertions of public benefits, no specific data or market projections are included as the amount of spectrum likely to be required or the technologies with which licensed users would have to co-exist. Such information is a prerequisite to the meaningful consideration of the complex questions surrounding the sharing of spectrum between licensed and unlicensed users.

control the physical location at which the unlicensed device operates. Consider, for example, the problems inherent in restricting the use of a laptop computer, whose use would be lawful in the mid-west, but unlawful while the owner of the device was traveling on the east coast. Particularly with respect to widely available consumer devices where the consumer has no idea what frequencies are used or that a potential for interference may exist, theoretical geographical limitations of use simply are unworkable.

In the Notice, the Commission further suggests that **GPS** technology might enable an unlicensed device to “know” where it is, and thus use a frequency database to avoid interference. Again, while possibly workable in theory, the practical feasibility, practicality and economic costs of such a technologically complex system are, to the best of our knowledge, unknown quantities at this time. Among the many factors to consider, GPS technology generally requires line-of-sight communication with a satellite, and thus would appear to be of limited value for devices used indoors. At best, the future promise of such a technological solution to a multifaceted and highly complex problem is simply too speculative to be relied upon to prevent interference to public safety communications systems.

III. PUBLIC SAFETY RADIO BANDS SHOULD BE EXCLUDED FROM THE SCOPE OF THIS PROCEEDING

Among the options set forth for consideration, the Notice inquires whether “the use of certain channels by unlicensed devices should not be permitted?” Notice, ¶14. For public safety band channels located in the overall TV Channel **2-69** range, this is the only realistic option set forth in the Notice for two fundamental reasons. First, as with the examples of radio astronomy operations and Wireless Medical Telemetry services cited

in the *Notice*, as summarized above, *the* very same “special interference concerns” apply with equal or greater force to public safety band usage.

Second, the *Notice* simply does not reflect a sufficient technical record to provide the basis to undertake a formal inquiry into the need for unlicensed users to share vitally important public safety spectrum. The Commission’s discretion to alter public safety band usage is not unlimited. Under the Communications Act, one of the primary missions of the Commission is to promote “the safety of life and property through the use of wire and radio communications . . .” 47 U.S.C. §151. Over the past decade in particular, Congress has very carefully reviewed the spectrum needs of public safety agencies and, in specific cases, expressly directed the allocation of additional spectrum for public safety use in recognition of the shortages of “spectrum to meet the needs of many public safety organizations, particularly in major metropolitan regions.”” These considerations require that any plan for the sharing of existing public safety spectrum, whether done on a licensed or unlicensed basis, should only be undertaken in close consultation with Congress and only as a last resort after all other spectrum options have been fully considered and exhausted.

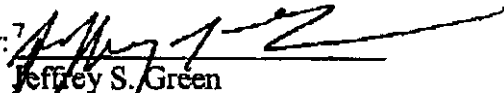
¹⁰ *Report and order in ET Docket No. 97-157, supra*, 12 FCC Rcd at 22958. More specifically, as pointed out in the comments of the Association of Public-Safety Communications Officers, the allocation of **TV** channels **63-64** and **68-69** for public use is required by Section **337** of the Communications Act. Thus, the reallocation of these channels for an additional shared use is precluded by statute and may not be done without further express Congressional action. Furthermore, under Section 337(b) of the Communications Act, public safety agencies are accorded preferential consideration in the utilization of unused existing allocations. To the extent existing spectrum in the TV band is currently unused, as envisioned in the *Notice*, it should be considered for public safety use.

CONCLUSION

For these reasons, the Port Authority requests that the Commission promptly terminate this Inquiry proceeding as to the 470-5 12 MHz and 764-776/794-806 MHz public safety radio bands.

Respectfully submitted,

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